

Section 340

330-3 PIPE INSTALLATION

Install the pipe by trenchless construction, true to line and grade and so settlement does not occur. Fill all voids around the pipe. Replace installations that become damaged or have to be abandoned.

Conduct a pre-construction meeting in the presence of the Engineer at least 48 hours before the beginning of the pipe installation. The meeting shall consist of, but not be limited to:

(A) Reviewing all installation methods to install the pipe true to the line and grade given,

(B) Methods to insure there is no settlement of the pipe or of the completed roadway section, and

(C) Methods for filling any potential voids around the pipe.

330-4 MEASUREMENT AND PAYMENT

___" *Welded Steel Pipe*, ___" *Thick, Grade B in Soil* will be measured and paid as the actual number of linear feet of pipe measured along the flow line to the nearest foot, which has been installed in soil.

___" *Welded Steel Pipe*, ___" *Thick, Grade B Not in Soil* will be measured and paid as the actual number of linear feet of pipe measured along the flow line to the nearest foot which has been installed in non-soil, as observed and confirmed by the Engineer. Non-soil is defined as all material other than soil. The Contractor shall request and obtain the Engineer's observation and confirmation of the limits of the installation not in soil before and during the installation of the pipe or portion of the pipe not in soil.

Failure of the Contractor to request and obtain the Engineer's observation and confirmation of the limits of the pipe not in soil before and during the installation will result in the payment at the unit price for ___" *Welded Steel Pipe*, ___" *Thick, Grade B in Soil*.

Such payment will include, but is not limited to, furnishing all labor, tools, equipment, materials and incidentals, miscellaneous grading or excavation necessary to complete the work. Installations that become damaged or are abandoned will be replaced at no cost to the Department.

Payment will be made under:

Pay Item	Pay Unit
___" <i>Welded Steel Pipe</i> , ___" <i>Thick, Grade B in Soil</i>	Linear Foot
___" <i>Welded Steel Pipe</i> , ___" <i>Thick, Grade B Not in Soil</i>	Linear Foot

SECTION 340 PIPE REMOVAL

340-1 DESCRIPTION

Remove and dispose of all existing roadway drainage pipe, including flared end sections, where the removal of the existing pipes is required by the plans or as directed. Unless otherwise indicated in the plans, this work excludes the removal and disposal of any existing public or private water or sewage pipe or subsurface and shoulder drain pipe.

The Contractor has the option of leaving pipes in place and filling with flowable fill.

340-2 MATERIALS

Refer to Division 10.

Item	Section
Chemical Admixtures	1024-3
Fine Aggregate	1014-1
Flowable Fill	1000-6

Item	Section
Fly Ash	1024-5
Portland Cement	1024-1
Type IP Blended Cement	1024-1
Type IS Blended Cement	1024-1
Water	1024-4

- 1 For fine aggregate, bottom ash may be used with permission of the Engineer.
- 2 For chemical admixtures, high-air generators or foaming agents may be used instead of
- 3 conventional concrete air-entraining agents with the permission of the Engineer.
- 4 For fly ash, certain requirements of this article and ASTM C618 may be waived with the
- 5 permission of the Engineer.

6 **340-3 CONSTRUCTION METHODS**

- 7 Remove existing pipe when so designated in the plans or as directed. When an existing pipe
- 8 is encountered that is not shown in the plans, do not remove until the Engineer is notified of
- 9 its presence and has directed its removal.
- 10 Remove pipe in sections so traffic is maintained. Remove existing pipe so nearby facilities
- 11 will not be damaged.
- 12 Backfill the area disturbed by the removal of an existing pipe in accordance with the *Standard*
- 13 *Specifications* applicable to the adjacent construction.
- 14 Salvaged pipe is the property of the Contractor unless otherwise indicated by the contract.
- 15 Discharge flowable fill material directly from the truck into the space to be filled or by other
- 16 approved methods. The mix may be placed full depth or in lifts as site conditions warrant.

17 **340-4 MEASUREMENT AND PAYMENT**

- 18 *Pipe Removal* will be measured and paid as the actual number of linear feet of pipe and flared
- 19 end sections, measured to the nearest 0.1 ft that has been removed in accordance with this
- 20 section. No measurement and payment will be made for pipe removal when a new pipe is
- 21 placed back in the same trench.
- 22 *Flowable Fill* will be measured and paid as the item for which it was substituted. In no case
- 23 will payment for the use of flowable fill as a substitute be made for more than one deleted
- 24 item of work.
- 25 Any additional backfill material that is necessary will be paid at the contract unit price for
- 26 *Unclassified Excavation* in accordance with Article 225-7 or at the contract unit price for
- 27 *Borrow Excavation* in accordance with Article 230-5, depending on the source of the material.
- 28 Payment includes but is not limited to removing pipe, hauling pipe and all excavating and
- 29 backfilling that may be necessary.
- 30 Payment will be made under

Pay Item	Pay Unit
Pipe Removal	Linear Foot